Page 14,   line 6,   delete "for precise analyzing of";

line 7,   delete "environment ("   and delete   ")" ;

lines 10, 17 change "remote data" to --data--;

line 18,   after "system" insert --(processing system)--.

Page 16,   line 12,   delete "an improved method of the";

line 13,   delete "environment analyzing, using" and   delete "detected signal";

line 15,   delete "light" ;

line 17,   change "a voltage-pulse" to --voltage (analog)-digital form pulse--.

Page 17,   line 5,   change "precise analyzing of environment" to --particle counting and measuring--;

line 6,   change "a remote data" to --a data --;

line 19   change "The remote data" to --The data--.

Page 18   lines 6, 8   change "remote data" to --data--;

line 10,   change "environment" to --particles--;

line 16,   change "mix" to --combination--.

Page 19,   line 8   change "remote data" to --data--.

Page 20,   line 15,   after "using" insert --the-- .

Page 21,   line 12, 13   change "voltage-pulse" to --voltage-digital form pulse--;

line 18,   after "within" insert --the-- and change "is meaning" to --means--.

Page 22,   line 3,   change "The longer strobe pulse package" to --The more strobe pulses within a strobe pulse package, the longer strobe pulse package--;

line 10,   change "Also" to --Further,--.

Page 23   lines 7, 8, 16, 18 change "remote data" to --data--;

line 14   change "modified" to --conventional--.

Page 24,   line 3   change "remote data processing" to --data processing--;

line 13,   delete "of the wireless communicating";

line 14,   delete "real";

line 15,   change "creating" to --created-- and delete "microproces-";

line 16,   delete "sor";

line 17,   delete "of the wireless communicating";

line 18,   change "detecting system" to --sensor--.

Page 25,   line 1,   change "approaching" to --accessible--.

In the Claims:

Claims 38-48 have been canceled by CPA from April 28, 1999 and substituted new claims 49-58.

Cancel claims 49-58 (herebyin canceling claims 38-48) and substitute new claims 59-66 as follows:

59. A method for counting and measuring particles illuminated by a light beam, providing two-way wireless communication between a data processing and control system and a remote particle detecting system, said method comprising the steps of:

forming in said data processing and control system at least one of control signals, which provide a turning-on, turning-off and switching of modes of operation of said remote particle detecting system;

conversing said control signals to the form for wireless transmission;

wireless transmitting of the conversed control signals from said data processing and control system to said remote particle detecting system;

wireless receiving of the transmitted control signals by said remote particle detecting system;

conversing the received control signals to the form for control of said remote particle detecting system;

sensing by a light detecting means of a particle detecting means of said remote particle detecting system a light created by an intersection of said light beam and said particles within a particle monitoring region and providing an output, which is effectively indicative of a size of said particles;

processing said output by a signal processing system of said remote particle detecting system;

forming in said signal processing system of said remote detecting system a data, containing an information about a quantity and said size of said particles;

conversing said data, containing said information about said quantity and said size of said particles to the form for wireless transmission;

wireless transmitting of the conversed data, containing said information about said quantity and said size of said particles, from said remote particle detecting system to said data processing and control system;

wireless receiving of the transmitted data, containing said information about said particle quantity and size, by said data processing and control system;

conversing the received data, containing said information about said quantity and said size of said particles to the form for processing;

processing the conversed data, containing said information about said quantity and said size of said particles, by said data processing and control system.

2 60. The method of claim 59, wherein said two-way wireless communication is provided by a transmitting-receiving means of a wireless communication means of said remote particle detecting system via an aerial means of said wireless communication means of said remote particle detecting system and by an adequate transmitting-receiving means of an adequate wireless communication means of said data processing and control system via an adequate aerial means of said adequate wireless communication means of said data processing and control system.

3 61. An apparatus for counting and measuring particles illuminated by a light beam, providing two-way wireless communication between a data processing and control system and remote particle detecting systems, said apparatus comprises:

at least on of a plurality of said wireless communicating remote particle detecting systems, each of which includes

a particle detecting system, comprising

a particle detecting means, including detection means, comprising a light detecting means of a light detecting system;

a signal processing system, providing a processing of an output from said light detecting system and forming a data, containing an information about a quantity and a size of said particles;

a conversion system, converting control signals, received from said data processing

and control systems, to the form for control of said remote particle detecting system and converting said data, containing said information about said quantity and said size of said particles, to the form for transmission to said data processing and control systems ;

a wireless communication means, comprising

a wireless transmitting-receiving means, including a transmitting means, providing the transmission of said data, containing said information about said quantity and said size of said particles, to said data processing and control system, and a receiving means, providing the receiving of said control signals from said data processing and control system; and

an aerial means;

at least one said wireless communicating data processing and control system, comprising

a processing system, including

a microprocessor means, forming said control signals and processing said data received from said remote particle detecting system and containing said information about said quantity and said size of said particles;

a terminal means, comprising at least one of: a displaying means, a floppy disk means, a compact disk means, a printing means and a control panel; and

a conversion means, converting said control signals to the form for transmission to said remote particle detecting system and converting said data received from said remote particle detecting system to the form for processing by said processing system;

an adequate wireless communication means, including

an adequate wireless transmitting-receiving means, comprising an adequate transmitting means, providing the transmission of said control signals to said remote particle detecting system, and an adequate receiving means, providing the receiving of said data, containing said information about said quantity and said size of said particles, from said remote particle detecting system; and

an adequate aerial means.

62. The apparatus of claim 61, wherein said particle detecting means of each of said wireless communicating remote particle detecting systems includes a tubular means coupling a detection means and an environment assaying control means.

63. The apparatus of claim 61, wherein said conversion system of each of said wireless communicating remote particle detecting systems includes an appropriate conversion means connected to a coding-decoding means, providing recognition of a conventional identification number of an appropriate wireless communicating remote particle detecting system.

64. An apparatus for counting and measuring particles, providing a processing of an output of a light detecting means, said apparatus comprises:

a current-voltage conversion means, providing conversion of said output of said light detecting means to voltage value signals, and wherein said output is effectively indicative of a size of said particles;

an amplifying means, providing an amplification of said voltage value signals;

an analog-digital form pulse duration conversion means, providing conversion of each of said voltage value signals to digital form pulses, and wherein each of said digital form pulses has a duration, which is adequate to the duration of an appropriate output of said light detecting means;

a strobe pulse generating means, providing generating of strobe pulses;

a conjunction means, forming a strobe pulse packages by conjunction of each of said